CONFIDENTIAL

PCM DIGITAL AUDIO PROCESSOR FOR PROFESSIONAL USE

PCM-10

PCM DIGITAL AUDIO PROCESSOR FOR PROFESSIONAL USE

PCM-100

SERVICE MANUAL (1)

SONY

SERVICE MANUAL

Sony Corporation
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° Power board;

a. Meter level adjustment

Apply a 1kHz signal of -10dB to the LINE IN connector.

Connect the VIDEO OUTPUT and VIDEO INPUT connectors on the rear panel by using a coaxial cable fitted with BNC connectors.

Set the REC LEVEL control so that the OVER LEVEL lamps(both L and R channels) light up.

Adjust VR701(CH-L) and VR702(CH-R) so that the PEAK PROGRAM METER indicates the maximum red level.

b. Fan speed adjustment

Adjust VR703 to obtain a 6Vp-p output signal at the collector of Q704.

c. Fan balance adjustment

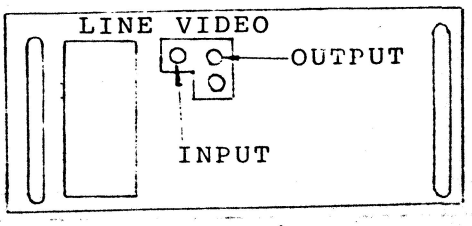
Adjust VR704 so that the outputs of Q704 and Q706 become equal amplitude.

Trouble Shooting

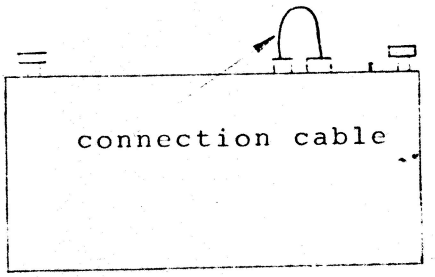
1. Symptom: No sound

Q 1. Is the sound reproduced when the recorded tape is played back ?
If yes, the record circuitry is faulty.

Q 2. Connect the VIDEO INPUT connector and the VIDEO OUTPUT connector with a connection cable as shown below.



rear view



top view

Does the signal applied to the LINE INPUT connector come out from the LINE OUTPUT connector ?
Do the error and muting LEDs go off ?
If yes, the PCM unit is normal. In this case , the VTR is defective or the connection with the VTR is faulty.

2. Symptom: Too much drop-out or Noise

Q 1. Connect the VIDEO INPUT connector and the VIDEO OUTPUT connector as illustrated above.
If symptoms still remain, the PCM unit is defective.

Q 2. Is the PCM switch of the VTR set to the PCM position?

Q 3. Can the VTR record normally ?
Do streaks appear on the upper or lower part of the monitor screen when the recorded signal is observed on a TV.
Is the tape worn out ?

Q 4. Have you adjusted the tracking volume of the VTR ?

Q 5. Record on a brand-new tape and play it back.
Are noises still produced ?

Note: When ICs of the error correction circuit are defective, the PCM seems to be normal in the E-E connction (See the above illustration) .
But the PCM unit produces noises when the recorded tape is played back.
In this case, make sure the defective board by replacing a good circuit board.

REPAIRING THE PCM-100:

The PCM-100 unit is utilizing six plug-in type digital-circuits printed cards. Each of these cards is to be replaced in the form of complete (mounted) card when it is required to be repaired.

DISASSEMBLY:

° Top and side plates;

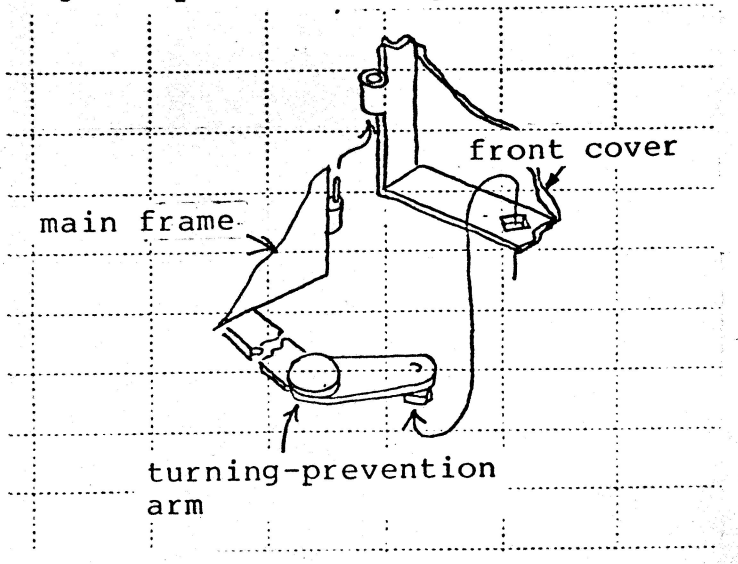
Remove four large-size phillips-head screws from each plate, and they will be removed.

° Rear panel;

The bottom end of the rear panel is constructed as hinge-type pivot. Remove the three hexagonal-socket-head screws at the top edge of the rear panel by using a 3.0mm Allen wrench or a hex driver, and the panel can be opened from top to bottom.

° Front cover for digital-cards section;

Open the cover from left to right. Lift up and remove the end of the turning-prevention arm from the front cover as shown below. Remove the front cover by lifting it up and removing it from the hinges.



ADJUSTMENTS:

° Headphone board;

a. Offset adjustment

Set the HEADPHONE LEVEL control to "0" (minimum). Connect a digital voltmeter across the source of Q803(CH-L) (Q853 for CH-R) and ground. Adjust VR802(CH-L) or VR-852(CH-R) to obtain ±0V reading on the digital voltmeter.

b. Distortion adjustment

Apply a 1kHz signal of -10dB to the LINE IN connector.

Connect the VIDEO OUTPUT and VIDEO INPUT by using a coaxial cable fitted with BNC connectors.

Set the REC LEVEL control so that the PEAK PROGRAM METER indicates 0VU.

Connect a distortion meter to the output of Q803(CH-L) (Q853 for CH-R). Adjust VR803 (CH-L) or VR853(CH-R) to obtain a minimum distortion.

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AUDIO LAB PRODUCTS

LIMITED WARRANTY

SONY CORPORATION OF AMERICA ("SONY") warrants this product against defects in material or workmanship, as follows:

1. For a period of 4 years from the date of purchase, SONY will pay the labor charges of your authorized SONY service facility to repair the defective product. After this 4 year period, you must pay for all labor charges.
2. In addition, SONY will supply, at no charge, new or rebuilt replacement for defective parts for a period of 4 years from the date of purchase.

To obtain warranty service, you must take the product, or deliver the product prepaid, to an authorized SONY service facility.

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SONY CORPORATION OF AMERICA
47-47 Van Dam Street, Long Island City, New York 11101

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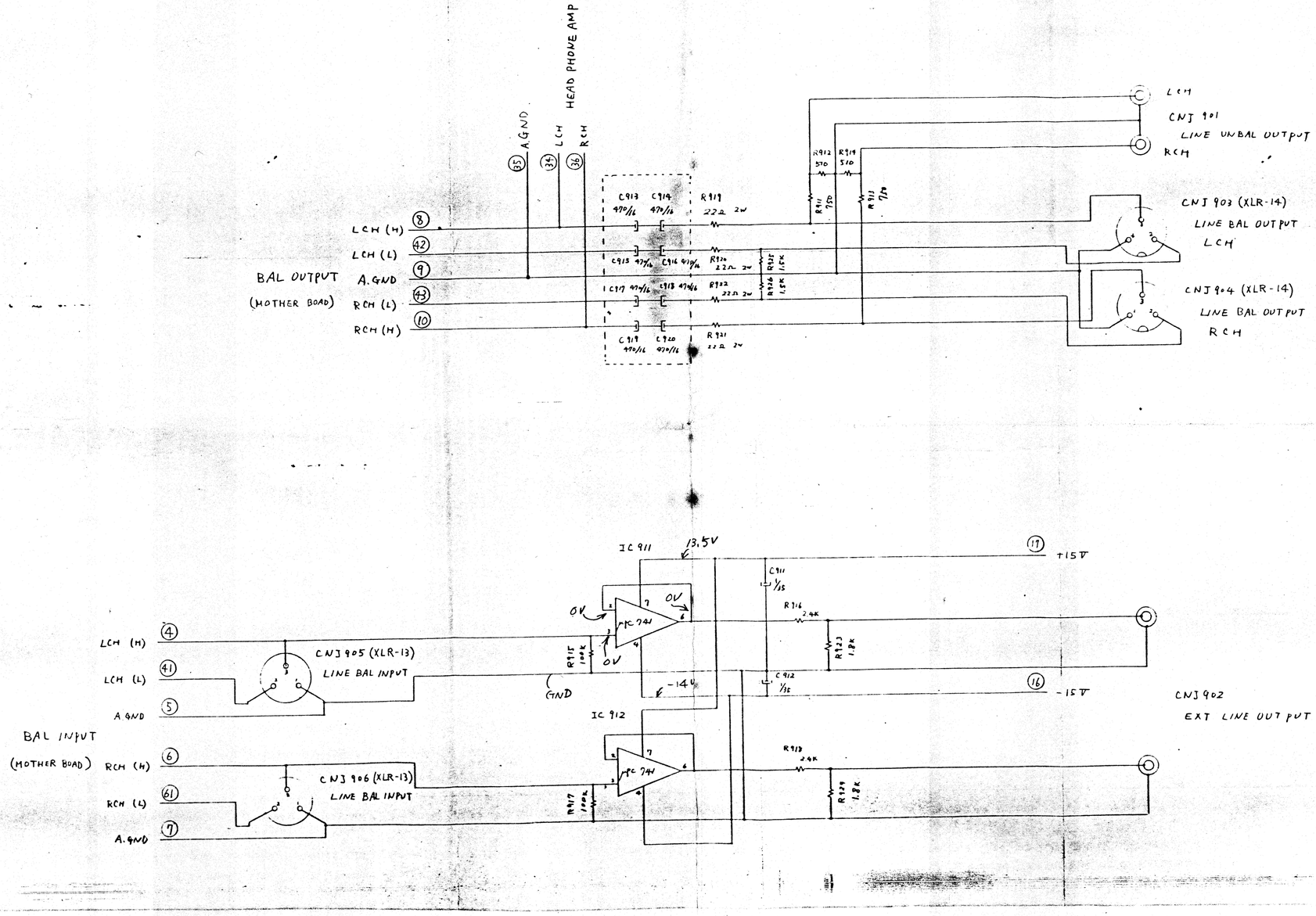
ISOねじ使用

PCM 100



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ISOねじ使用

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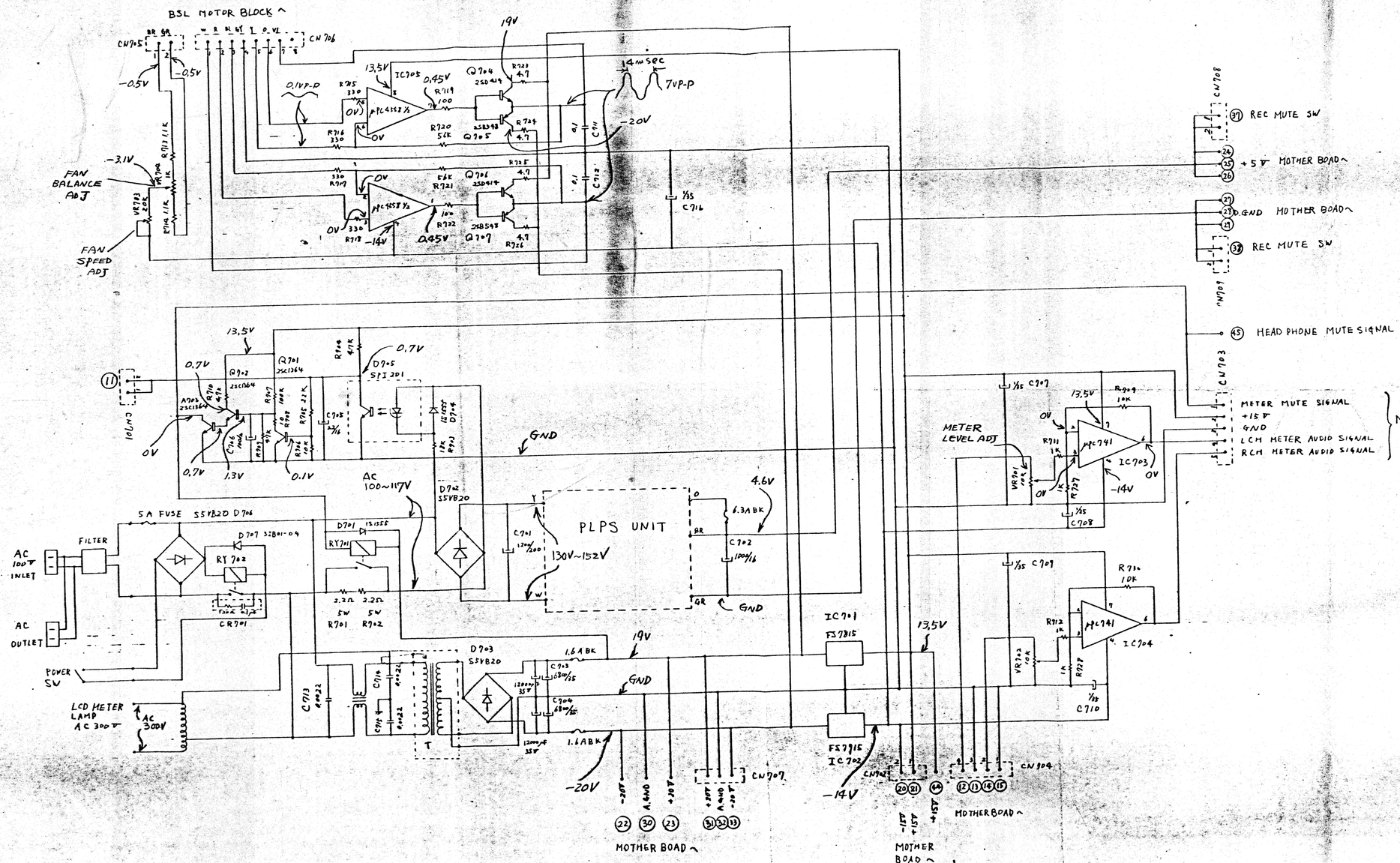
— POWER —



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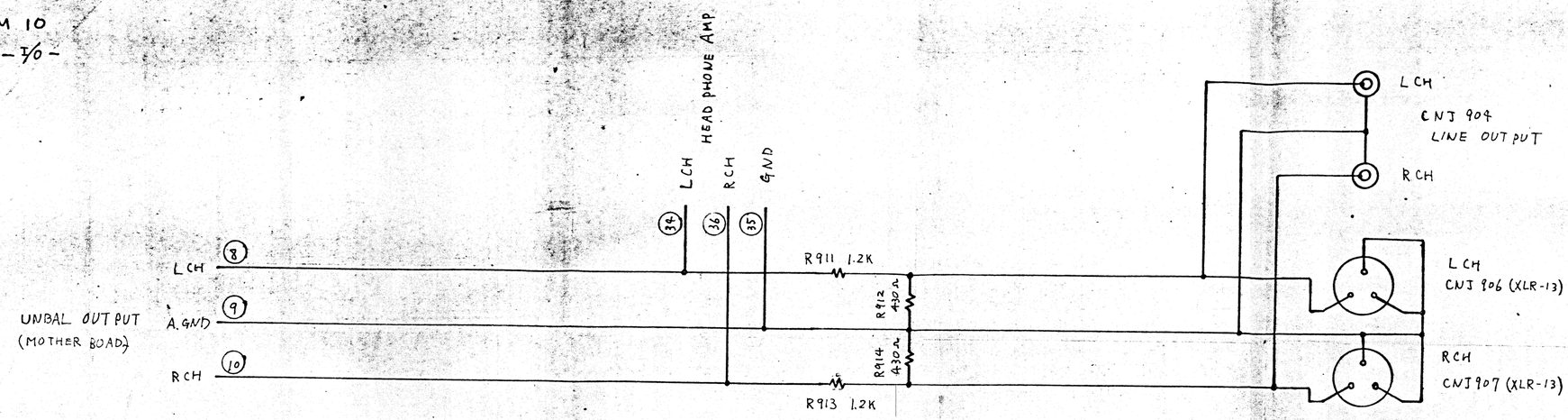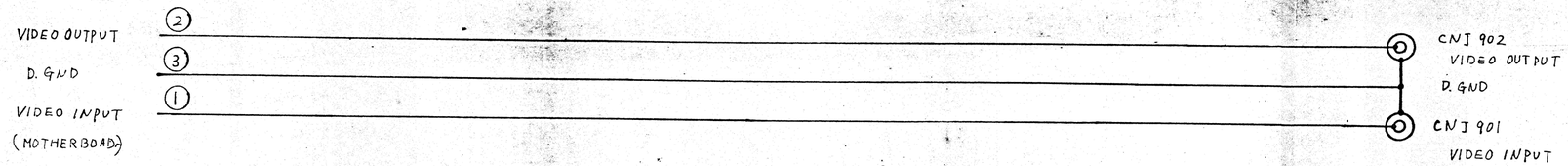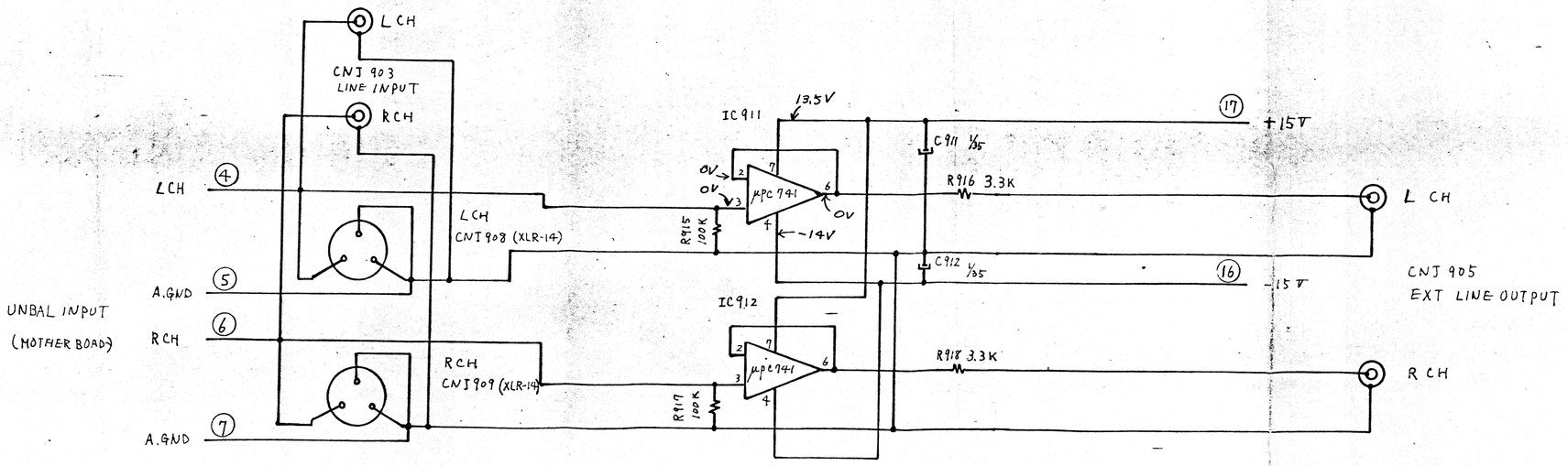
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